

WSDOT Perspective on Studded Tires

In 2001 the state's Blue Ribbon Commission on Transportation recommended that studded tires be banned or a fee be assessed on the sale of studded tires. This year the State Transportation Commission is recommending that the Legislature ban studded tires.

Because public safety is the primary concern of the Washington State Department of Transportation (WSDOT), the department recommends motorists become aware of the hazards associated with studded tires and educated on alternatives.

Studded tires are only effective in improving traction on ice at or near the freezing temperature when ice is the most slippery. This condition is estimated to occur less than one percent of the time in Washington State. In other situations, such as dry or wet pavement, studded tires are less safe because stopping distances are increased and handling is compromised due to the metal studs. Drivers are trying to start and stop on metal rather than on rubber tire tread.

Studies show that studded tires offer no advantage on snow-covered roads. This is coupled with the fact that WSDOT is becoming more proactive in winter maintenance, keeping roads bare and preventing frost or black ice more frequently through anti-icing with chemical applications. Studded tires also give drivers a false sense of security so they tend to drive a bit more aggressively than they should. A five mile-per-hour increase in speed removes any effectiveness the tires may provide. Therefore, many drivers are making travel for them and their families less safe by using the studded tires.

Studded tires create ruts in the pavement. Pavement ruts create problems with vehicle directional control and are hazardous in wet weather because of ponding and subsequent problems due to hydroplaning and reduced visibility with water spray. Studded tires also polish stones in cement aggregate, which makes the surface more slippery for all vehicles.

In recent years technological advances in tire construction led to the development of tires that are more effective than studded tires on ice and provide increased traction in snow and on wet or dry pavement. Additionally, many studless tires contain compounds that function like studs but don't damage the pavement – the tread may contain air bubbles that grip like suction cups, or the tread may incorporate a siping design, allowing the tire to grip the pavement or ice better. Side-by-side comparisons show studless tires to have improved traction, handling, cornering, and braking compared to studded tires.

Pavement damage is a costly problem associated with studded tires. The estimated cost for pavement repair on Washington State highways due to studded tires is over \$10 million annually. This is a cost borne by all taxpayers, not just the users of studded tires.

For more detailed information related to studded tires and a variety of links including reports and facts on alternative tires, visit the WSDOT Winter Driving Tips Web site at www.wsdot.wa.gov/winter/default.

WSDOT hopes this information provides enough incentive to consider the use of alternative tires during the winter months. They are safer for you and your family, for other motorists, and will cost all taxpayers less in the long run.